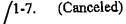
## APPLICATION NO. 10/600,689 (NEWKO1.001C1) PROPOSED CLAIM AMENI MENTS TO EXAMIER KAGNEW GEPREYESUS

Fax: 571 273 2937



V 8. (Currently amended) An isolated <u>arabinose isomerase</u> polypeptide comprising <u>SEO ID NO: 4 encoded by a polynucleotide arabinose isomerase isolated</u> from *Thermotoga neapolitana*.

(Currently amended) An isolated <u>polynucl totide polypeptide</u> comprising <u>SEO ID</u>

NO: 3 that encodes for an arabinose isomerase <u>polypeptide</u> encoded by a nucleotide derived from Thermotoga neapolitana.

- (Currently amended) The isolated <u>polyr ucleotide</u> <del>polypeptide</del> of Claim 9, wherein said arabinose isomerase has the amino acid sequence of SEQ. ID NO: 4.
- √ 11. (Currently amended) The isolated polypeptide of Claim 810, wherein said polypeptide is attached to further comprising a solid support.
- √ 12. (Original) The isolated polypeptide of Claim 11, wherein the solid support is a silica bead.
  - 13-15. (Canceled)
  - 16. (Currently amended) An arabinose isomerase produced by a method comprising: providing a host cell transformed with the polynucleotide sequence SEQ ID NO:
  - 3 an expression vector comprising a nucleotide de ived from Thermotoga neapolitana, the polynucleotide coding for an arabinose isomerage and

culturing the host cell in a medium, thereby producing an the arabinose isomerase.

- 17. (Currently amended) A method of producing tagatose, comprising:

  providing the isolated polypeptide of Clair 1 8-9; and
  admixing the arabinose isomerase with galactose, thereby causing a reaction and producing tagatose.
- 18. (Original) The method of Claim 17, wherein the reaction is carried out at a pH from about 5 to about 8.

- 19. (Original) The method of Claim 17, wherein the reaction is carried out at a temperature from about 50°C to about 100°C.
- 20. (Original) The method of Claim 19, wherein the reaction is carried out at a temperature from about 70°C to about 95°C.
- 21. (Original) The method of Claim 17, wherein the isolated polypeptide is attached to a solid support.
  - 22. (Original) The method of Claim 21, wherein the solid support is a silica bead.
- 23. (Original) The method of Claim 17, wherein the reaction is carried out at a temperature of about 80°C.
  - 24. (Canceled)
  - 25. (Canceled)
- 26. (Currently amended) The isolated polypeptide of Claim <u>8-9-</u>, wherein the <u>poly</u>nucleotide has the sequence of SEQ. ID NO: 3.
- 27. (Previously presented) The arabinose isomerase of Claim 16, wherein the arabinose isomerase has the amino acid sequence of SEQ. ID NO: 4.
  - 28. (Canceled)
- 29. (Previously presented) The arabinose isomerase of Claim 16, wherein the host cell is E. coli.
- 30. (Previously presented) The arabinose isomerase of Claim 16, wherein the host cell is E. coli BL21/DE3 (pTNAI) deposited as Accession No. KCCM-10231.

1

1313928\_I 030405